CD RDS RECEIVER

DEH-1590UB

Owner's Manual

Before you start

Operating this unit

Thank you for purchasing this PIONEER product
To ensure proper use, please read through this manual before using this product. It is especially important that you read and observe **WARN-ING**s and **CAUTION**s in this manual. *Please keep the manual in a safe and accessible place for future reference.*

About this unit

⚠ **CAUTION**
• Do not allow this unit to come into contact with liquids. Electrical shock could result. Also, damage to this unit, smoke, and over-heating could result from contact with liquids.
• Always keep the volume low enough to hear outside sounds.
• Avoid exposure to moisture.
• If the battery is disconnected or discharged, any preset memory will be erased.

Note
Function setting operations are completed even if the menu is canceled before the operations are confirmed.

About this manual

In the following instructions, USB memories and USB audio players are collectively referred to as "USB storage device".

In case of trouble

Should this unit fail to operate properly, please contact your dealer or nearest authorized PIONEER Service Station.
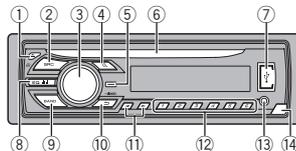
Visit our website

Visit us at the following site:
http://pioneer.jp/group/index-e.html
• We offer the latest information about PIONEER CORPORATION on our website.

Head unit

Part		Part	
①	⏏ (eject)	⑧	EQ (equalizer)
②	**SRC/OFF**	⑨	**BAND**
③	**MULTI-CONTROL (M.C.)**	⑩	⮌ (back)/**DIMMER** (dimmer)
④	🔍 (list)	⑪	◀/▶
⑤	**DISP/DISP OFF**	⑫	**1/∧** to **6/⮌**
⑥	Disc loading slot	⑬	AUX input jack (3.5 mm stereo jack)
⑦	USB port	⑭	Detach button

⚠ **CAUTION**
• Use an optional Pioneer USB cable (CD-U50E) to connect the USB storage device as any device connected directly to the unit will protrude out from the unit, which could be dangerous.
• Do not use unauthorized products.

Remote control
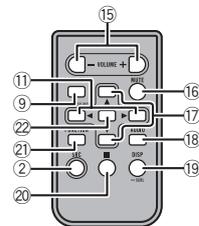
Part	Operation
⑮ **VOLUME**	Press to increase or decrease volume.
⑯ **MUTE**	Press to mute. Press again to unmute.
⑰ ▲/▼	Press to recall preset stations. Press to select the next/previous folder.
⑱ **AUDIO**	Press to select an audio function.
⑲ **DISP/SCRL**	Press to select different displays. Press and hold to turn dimmer on or off.
⑳ ❚❚	Press to pause or resume playback.
㉑ **FUNC-TION**	Press to select functions.
㉒ **LIST/ENTER**	Press to display the disc title, track title, folder, or file list depending on the source. Press to display the list depending on the source. While in the operating menu, press to control functions.

Display indication
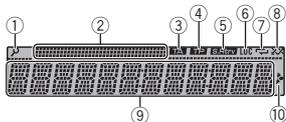
	Indicator	State
①	🔍 (list)	The list function is being operated.
②	Sub information section	Sub information is displayed.
③	TA (traffic announcements)	TA function is on.
④	TP (traffic program identification)	A TP station is tuned in.
⑤	S.Rtrv (sound retriever)	The sound retriever function is on.
⑥	LOC	Local seek tuning is on.
⑦	↩ (repeat)	Track or folder repeat is on.
⑧	✕✕ (random)	Random play is on.

	Indicator	State
⑨	Main information section	• Tuner: band and frequency • RDS: program service name, PTY information and other literal information • CD player and USB storage device: elapsed playback time and text information
⑩	↳	Appears when a lower tier of folder or menu exists.

Set up menu

When you turn the ignition switch to ON after installation, set up menu appears on the display. You can set up the menu options below.

1 After installation of this unit, turn the ignition switch to ON.
SET UP appears.

2 Turn M.C. to switch to YES.
■ If you do not operate for 30 seconds, the set up menu will not be displayed.
■ If you prefer not to set up at this time, turn **M.C.** to switch to **NO**. Press to select.
If you select **NO**, you cannot set up in the set up menu.

3 Press M.C. to select.

4 Perform the following procedures to set the menu.
To proceed to the next menu option, you need to confirm your selection.

CLOCK SET (setting the clock)

1 Turn **M.C.** to adjust hour.
2 Press **M.C.** to select minute.
3 Turn **M.C.** to adjust minute.
4 Press **M.C.** to confirm the selection.

FM STEP (FM tuning step)

Normally, the FM tuning step employed by seek tuning is 50 kHz. When AF or TA is on, the tuning step automatically changes to 100 kHz. It may be preferable to set the tuning step to 50 kHz when AF is on.
• The tuning step remains at 50 kHz during manual tuning.
1 Turn **M.C.** to select the FM tuning step.
50 (50 kHz)—**100** (100 kHz)
2 Press **M.C.** to confirm the selection.

MW STEP (MW tuning step)

The MW tuning step can be switched between 9 kHz and 10 kHz.
1 Turn **M.C.** to select the MW tuning step.
9 (9 kHz)—**10** (10 kHz)
2 Press **M.C.** to confirm the selection.
QUIT appears.

5 To finish your settings, turn M.C. to select YES.
■ If you prefer to change your setting again, turn **M.C.** to switch to **NO**. Press to select.

6 Press M.C. to select.

 Notes
• You can set up the menu options from the system menu. For details about the settings, refer to *System menu* on page 7.
• You can cancel set up menu by pressing **SRC/OFF**.

Basic operations

↻ **Important**
• Handle gently when removing or attaching the front panel.
• Avoid subjecting the front panel to excessive shock.
• Keep the front panel out of direct sunlight and high temperatures.
• To avoid damaging the device or vehicle interior, remove any cables and devices attached to the front panel before detaching it.

Removing the front panel to protect your unit from theft
1. Press the detach button to release the front panel.
2. Push the front panel upward (Ⅰ) and then pull it toward (Ⅱ) you.

3. Always keep the detached front panel in a protection device such as a protection case.

Re-attaching the front panel
1. Slide the front panel to the left.
   Make sure to insert the tabs on the left side of the head unit into the slots on the front panel.
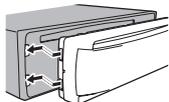
2. Press the right side of the front panel until it is firmly seated.
   If you cannot attach the front panel to the head unit successfully, make sure that you are placing the front panel onto the head unit correctly. Forcing the front panel into place may result in damage to the front panel or head unit.

Turning the unit on
1. Press **SRC/OFF** to turn the unit on.

Turning the unit off
1. Press and hold **SRC/OFF** until the unit turns off.

Selecting a source
1. Press **SRC/OFF** to cycle between:
   TUNER (tuner)—**CD** (CD player)—**USB** (USB) —**AUX** (AUX)

Adjusting the volume
1. Turn **M.C.** to adjust the volume.

⚠ CAUTION

For safety reasons, park your vehicle when removing the front panel.

Note

When this unit's blue/white lead is connected to the vehicle's auto-antenna relay control terminal, the vehicle's antenna extends when this unit's source is turned on. To retract the antenna, turn the source off.
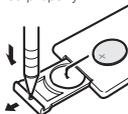
Use and care of the remote control

Using the remote control
1. Point the remote control in the direction of the front panel to operate.
   When using for the first time, pull out the film protruding from the tray.

Replacing the battery
1. Slide the tray out on the back of the remote control.
2. Insert the battery with the plus (+) and minus (–) poles aligned properly.

⚠ WARNING

• Keep the battery out of the reach of children. Should the battery be swallowed, consult a doctor immediately.
• Batteries (battery pack or batteries installed) must not be exposed to excessive heat such as sunshine, fire or the like.

⚠ CAUTION

• Use one **CR2025 (3 V)** lithium battery.
• Remove the battery if the remote control is not used for a month or longer.
• There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type.
• Do not handle the battery with metallic tools.
• Do not store the battery with metallic objects.
• If the battery leaks, wipe the remote control completely clean and install a new battery.
• When disposing of used batteries, comply with governmental regulations or environmental public institutions' rules that apply in your country/area.

⊖ Important

• Do not store the remote control in high temperatures or direct sunlight.
• The remote control may not function properly in direct sunlight.
• Do not let the remote control fall onto the floor, where it may become jammed under the brake or accelerator pedal.

Frequently used menu operations

Returning to the previous display
Returning to the previous list (the folder one level higher)
1. Press ⤴/**DIMMER**.

Returning to the ordinary display
Canceling the main menu
1. Press **BAND**.

Returning to the ordinary display from the list
1. Press **BAND**.

Tuner

Basic operations

Selecting a band
1. Press **BAND** until the desired band (**FM1**, **FM2**, **FM3** for FM, **MW** or **SW1**, **SW2** for shortwave) is displayed.

Switching preset stations
1. Press ◄ or ►.
• Select **PCH** (preset channel) under **SEEK** to use this function. For details about the settings, refer to **SEEK** (*left/right key setting*) on page 6.

Manual tuning (step by step)
1 Press ◄ or ►.
• Select **MAN** (manual tuning) under **SEEK** to use this function. For details about the settings, refer to **SEEK** (*left/right key setting*) on the next page.

Seeking
1 Press and hold ◄ or ►, and then release.
You can cancel seek tuning by briefly pressing ◄ or ►.
While pressing and holding ◄ or ►, you can skip stations. Seek tuning starts as soon as you release ◄ or ►.

Note

This unit's AF (alternative frequencies search) function can be turned on and off. AF should be off for normal tuning operation (refer to **AF** (*alternative frequencies search*) on this page).

Storing and recalling stations for each band

Using preset tuning buttons

1 When you find a station that you want to store in memory, press one of the preset tuning buttons (1/⋀ to 6/↻) and hold until the preset number stops flashing.

2 Press one of the preset tuning buttons (1/⋀ to 6/↻) to select the desired station.

Switching the display

Selecting the desired text information
1 Press **DISP**/**DISP OFF** to cycle between the following:
• **FREQUENCY** (program service name or frequency)
• **BRDCST INFO** (program service name/PTY information)
• **CLOCK** (source name and clock)

Notes
• If the program service name cannot be acquired in **FREQUENCY**, the broadcast frequency is displayed instead. If the program service name is detected, the program service name will be displayed.
• **BRDCST INFO** text information will change automatically.
• Depending on the band, text information can be changed.
• Text information items that can be changed depend on the area.

Using PTY functions

You can tune in to a station using PTY (program type) information.

Searching for an RDS station by PTY information
You can search for general types of broadcasting programs, such as those listed in the following section. Refer to this page.
1 Press ⌕ (list).
2 Turn **M.C.** to select a program type.
NEWS/INFO—POPULAR—CLASSICS—OTHERS
3 Press **M.C.** to begin the search.
The unit searches for a station broadcasting that type of program. When a station is found, its program service name is displayed.
• To cancel the search, press **M.C.** again.
• The program of some stations may differ from that indicated by the transmitted PTY.
• If no station is broadcasting the type of program you searched for, **NOT FOUND** is displayed for about two seconds and then the tuner returns to the original station.

PTY list

NEWS/INFO (news and information)

NEWS (News), **AFFAIRS** (Current affairs), **INFO** (Information), **SPORT** (Sports), **WEATHER** (Weather), **FINANCE** (Finance)

POPULAR (popular)

POP MUS (Popular music), **ROCK MUS** (Rock music), **EASY MUS** (Easy listening), **OTH MUS** (Other music), **JAZZ** (Jazz), **COUNTRY** (Country music), **NAT MUS** (National music), **OLDIES** (Oldies music), **FOLK MUS** (Folk music)

CLASSICS (classics)

L. CLASS (Light classical), **CLASSIC** (Classical)

OTHERS (others)

EDUCATE (Education), **DRAMA** (Drama), **CULTURE** (Culture), **SCIENCE** (Science), **VARIED** (Varied), **CHILDREN** (Children's), **SOCIAL** (Social affairs), **RELIGION** (Religion), **PHONE IN** (Phone in), **TOURING** (Travel), **LEISURE** (Leisure), **DOCUMENT** (Documentaries)

Function settings

1 Press M.C. to display the main menu.

2 Turn M.C. to change the menu option and press to select FUNCTION.

3 Turn M.C. to select the function.
Once selected, the following functions can be adjusted.
• If **MW**, **SW1** or **SW2** is selected, only **BSM**, **LOCAL** and **SEEK** are available.

BSM (best stations memory)

BSM (best stations memory) automatically stores the six strongest stations in the order of their signal strength.
1 Press **M.C.** to turn BSM on.
To cancel, press **M.C.** again.

REGION (regional)

When AF is used, the regional function limits the selection of stations to those broadcasting regional programs.
1 Press **M.C.** to turn the regional function on or off.

LOCAL (local seek tuning)

Local seek tuning lets you tune in to only those radio stations with sufficiently strong signals for good reception.
1 Press **M.C.** to select the desired setting.
FM: **OFF—LV1—LV2—LV3—LV4**
MW/shortwave: **OFF—LV1—LV2**
The highest level setting allows reception of only the strongest stations, while lower levels allow the reception of weaker stations.

TA (traffic announcement standby)

1 Press **M.C.** to turn traffic announcement standby on or off.

AF (alternative frequencies search)

1 Press **M.C.** to turn AF on or off.

NEWS (news program interruption)

1 Press **M.C.** to turn the NEWS function on or off.

SEEK (left/right key setting)

You can assign a function to the left and right keys of the unit.
Select **MAN** (manual tuning) to tune up or down manually or select **PCH** (preset channel) to switch between preset channels.
1 Press **M.C.** to select **MAN** or **PCH**.

CD/CD-R/CD-RW and USB storage devices

Basic operations

Playing a CD/CD-R/CD-RW
1 Insert the disc into the disc loading slot with the label side up.

Ejecting a CD/CD-R/CD-RW
1 Press ⏏.

Playing songs on a USB storage device
1 Open the USB port cover.
2 Plug in the USB storage device using a USB cable.
Playback is performed automatically.

Stopping playback of files on a USB storage device
1 You may disconnect the USB storage device at any time.
The unit stops playback.

Selecting a folder
1 Press **1/∧** or **2/∨**.

Selecting a track
1 Press ◄ or ►.

Fast forwarding or reversing
1 Press and hold ◄ or ►.
• When playing compressed audio, there is no sound during fast forward or reverse.

Returning to root folder
1 Press and hold **BAND**.

Switching between compressed audio and CD-DA
1 Press **BAND**.

Switching between playback memory devices
You can switch between playback memory devices on USB storage devices with more than one Mass Storage Device-compatible memory device.
1 Press **BAND**.
• You can switch between up to 32 different memory devices.

Note
Disconnect USB storage devices from the unit when not in use.

Switching the display

Selecting the desired text information
1 Press **DISP/DISP OFF** to cycle between the following:
CD-DA
• **ELAPSED TIME** (track number and playback time)
• **CLOCK** (source name and clock)
• **SPEANA** (spectrum analyzer)
CD-TEXT
• **TRACK INFO** (track title/track artist/disc title)
• **ELAPSED TIME** (track number and playback time)
• **CLOCK** (source name and clock)
• **SPEANA** (spectrum analyzer)
MP3/WMA/WAV
• **TRACK INFO** (track title/artist name/album title)
• **FILE INFO** (file name/folder name)
• **ELAPSED TIME** (track number and playback time)
• **CLOCK** (source name and clock)
• **SPEANA** (spectrum analyzer)

Notes
• **TRACK INFO** and **FILE INFO** text information will change automatically.

• Depending on the version of iTunes used to write MP3 files to a disc or media file types, incompatible text stored within an audio file may be displayed incorrectly.
• Text information items that can be changed depend on the media.

Selecting and playing files/tracks from the name list

1 Press 🔍 to switch to the file/track name list mode.

2 Use M.C. to select the desired file name (or folder name).

Selecting a file or folder
1 Turn **M.C.**

Playing
1 When a file or track is selected, press **M.C.**

Viewing a list of the files (or folders) in the selected folder
1 When a folder is selected, press **M.C.**

Playing a song in the selected folder
1 When a folder is selected, press and hold **M.C.**

Operations using special buttons

Selecting a repeat play range
1 Press **6/↩** to cycle between the following:
CD/CD-R/CD-RW
• **ALL** – Repeat all tracks
• **ONE** – Repeat the current track
• **FLD** – Repeat the current folder
USB storage device
• **ALL** – Repeat all files
• **ONE** – Repeat the current file
• **FLD** – Repeat the current folder

Playing tracks in random order
1 Press **5/✕✕** to turn random play on or off.
Tracks in a selected repeat range are played in random order.
• To change songs during random play, press ► to switch to the next track. Pressing ◄ restarts playback of the current track from the beginning of the song.

Pausing playback
1 Press **4/PAUSE** to pause or resume.

Enhancing compressed audio and restoring rich sound (sound retriever)
1 Press **3/S.Rtrv** to cycle between:
1—2—OFF (off)
1 is effective for low compression rates, and **2** is effective for high compression rates.

Function settings

1 **Press M.C. to display the main menu.**

2 **Turn M.C. to change the menu option and press to select FUNCTION.**
Once selected, the function below can be adjusted.

S.RTRV (sound retriever)

Automatically enhances compressed audio and restores rich sound.
1. Press **M.C.** to select the desired setting.
   For details, refer to *Enhancing compressed audio and restoring rich sound (sound retriever)* on the previous page.

Audio adjustments

1 Press M.C. to display the main menu.

2 Turn M.C. to change the menu option and press to select AUDIO.

3 Turn M.C. to select the audio function.
Once selected, the following audio functions can be adjusted.
- **FADER** is not available when **SUB.W/SUB.W** is selected in **SP-P/O MODE**. For details, refer to **SP-P/O MODE** *(rear output and preout setting)* on the next page.
- **SUB.W**, **SUB.W CTRL** and **HPF SETTING** are not available when **REAR/REAR** is selected in **SP-P/O MODE**. For details, refer to **SP-P/O MODE** *(rear output and preout setting)* on the next page.
- **SUB.W CTRL** and **HPF SETTING** are not available when **SUB.W** is selected in **OFF**. For details, refer to **SUB.W** *(subwoofer on/off setting)* on this page.

FADER (fader adjustment)

1. Press **M.C.** to display the setting mode.
2. Turn **M.C.** to adjust the front/rear speaker balance.

BALANCE (balance adjustment)

1. Press **M.C.** to display the setting mode.
2. Turn **M.C.** to adjust the left/right speaker balance.

EQ SETTING (equalizer recall)

1. Press **M.C.** to display the setting mode.
2. Turn **M.C.** to select the equalizer.
   POWERFUL—NATURAL—VOCAL—CUSTOM1—CUSTOM2—FLAT—SUPER BASS
   The equalizer band and equalizer level can be customized when **CUSTOM1** or **CUSTOM2** is selected.
   If selecting **CUSTOM1** or **CUSTOM2**, complete the procedures outlined below. If selecting other options, press **M.C.** to return to the previous display.
   - **CUSTOM1** can be set separately for each source.
   - **CUSTOM2** is a shared setting used in common for all sources.
3. Press **M.C.** to display the setting mode.
4. Press **M.C.** to cycle between the following:
   Equalizer band—Equalizer level
5. Turn **M.C.** to select the desired setting.
   Equalizer band: **80HZ—250HZ—800HZ—2.5KHZ—8KHZ**
   Equalizer level: **+6** to **−6**
- You can also switch the equalizer by pressing EQ repeatedly.

LOUDNESS (loudness)

Loudness compensates for deficiencies in the low-frequency and high-frequency ranges at low volume.
1. Press **M.C.** to select the desired setting.
   OFF (off)—**LOW** (low)—**MID** (mid)—**HI** (high)

SUB.W (subwoofer on/off setting)

This unit is equipped with a subwoofer output which can be turned on or off.
1. Press **M.C.** to select the desired setting.
   NOR (normal phase)—**REV** (reverse phase)—**OFF** (subwoofer off)

SUB.W CTRL (subwoofer adjustment)

Only frequencies lower than those in the selected range are outputted from the subwoofer.
1. Press **M.C.** to display the setting mode.
2. Press **M.C.** to cycle between the following:
   Cut-off frequency—Output level—Slope level
   Rates that can be adjusted will flash.
3. Turn **M.C.** to select the desired setting.
   Cut-off frequency: **50HZ—63HZ—80HZ—100HZ—125HZ—160HZ—200HZ**
   Output level: **−24** to **+6**
   Slope level: **−6**— **−12**

BASS BOOST (bass boost)

1. Press **M.C.** to display the setting mode.
2. Turn **M.C.** to select a desired level.
   0 to **+6** is displayed as the level is increased or decreased.

HPF SETTING (high pass filter adjustment)

When you do not want low sounds from the subwoofer output frequency range to play from the front or rear speakers, turn on the HPF (high pass filter). Only frequencies higher than those in the selected range are output from the front or rear speakers.
1. Press **M.C.** to display the setting mode.
2. Press **M.C.** to cycle between the following:
   Cut-off frequency—Slope level
3. Turn **M.C.** to select the desired setting.
   Cut-off frequency: **OFF—50HZ—63HZ—80HZ—100HZ—125HZ—160HZ—200HZ**
   Slope level: **−6**— **−12**

SLA (source level adjustment)

SLA (Source level adjustment) lets you adjust the volume level of each source to prevent radical changes in volume when switching between sources.
- Settings are based on the FM volume level, which remains unchanged.
- The MW volume level can also be adjusted with this function.
- When selecting FM as the source, you cannot switch to **SLA**.
1. Press **M.C.** to display the setting mode.
2. Turn **M.C.** to adjust the source volume.
   Adjustment range: **+4** to **−4**

System menu

1 Press M.C. to display the main menu.

2 Turn M.C. to change the menu option and press to select SYSTEM.

3 Turn M.C. to select the system menu function.
Once selected, the following system menu functions can be adjusted.

CLOCK SET (setting the clock)

1. Press **M.C.** to display the setting mode.
2. Press **M.C.** to select the segment of the clock display you wish to set.
   Hour—Minute
3. Turn **M.C.** to adjust the clock.

12H/24H (time notation)

1. Press **M.C.** to select the desired setting.
   12H (12-hour clock)—**24H** (24-hour clock)

AUTO PI (auto PI seek)

The unit can automatically search for a different station with the same programming, even during preset recall.
1 Press **M.C.** to turn Auto PI seek on or off.

AUX (auxiliary input)

Activate this setting when using an auxiliary device connected to this unit.
1 Press **M.C.** to turn **AUX** on or off.

Switching the dimmer setting

You can adjust the brightness of illumination.

1   Press M.C. to display the main menu.

2   Turn M.C. to display ILLUMI and press to select.

3   Press M.C. to select the desired setting.
OFF (off)—**ON** (on)
• You can also change the dimmer setting by pressing and holding ⤴/**DIMMER**.

Initial menu

1   Press and hold SRC/OFF until the unit turns off.

2   Press and hold M.C. until the main menu appears in the display.

3   Turn M.C. to change the menu option and press to select INITIAL.

4   Turn M.C. to select the initial menu function.
Once selected, the following initial menu functions can be adjusted.

FM STEP (FM tuning step)

Normally, the FM tuning step employed by seek tuning is 50 kHz. When AF or TA is on, the tuning step automatically changes to 100 kHz. It may be preferable to set the tuning step to 50 kHz when AF is on.
• The tuning step remains at 50 kHz during manual tuning.
1 Press **M.C.** to select the FM tuning step.
50 (50 kHz)—**100** (100 kHz)

MW STEP (MW tuning step)

The MW tuning step can be switched between 9 kHz and 10 kHz.
1 Press **M.C.** to select the MW tuning step.
9 (9 kHz)—**10** (10 kHz)

SP-P/O MODE (rear output and preout setting)

The rear speaker leads output and the RCA output of this unit can be used to connect a full-range speaker or subwoofer. Select a suitable option for your connection.
1 Press **M.C.** to display the setting mode.
2 Turn **M.C.** to select the desired setting.
You can select any one of the options in the following list:
• **REAR/SUB.W** – Select when there is a full-range speaker connected to the rear speaker leads output and there is a subwoofer connected to the RCA output.
• **SUB.W/SUB.W** – Select when there is a subwoofer connected directly to the rear speaker leads output without any auxiliary amp and there is a subwoofer connected to the RCA output.
• **REAR/REAR** – Select when there is a full-range speaker connected to the rear speaker leads output and the RCA output.
If there is a full-range speaker connected to the rear speaker leads output and the RCA output is not used, you may select either **REAR/SUB.W** or **REAR/REAR**.

System menu

1   Press and hold SRC/OFF until the unit turns off.

2   Press and hold M.C. until the main menu appears in the display.

3   Turn M.C. to change the menu option and press to select SYSTEM.

4   Turn M.C. to select the system menu function.
Once selected, the following system menu functions can be adjusted.
For details, refer to *System menu* on the previous page.

Using an AUX source

1   Insert the stereo mini plug into the AUX input jack.

2   Press SRC/OFF to select AUX as the source.

Note
AUX cannot be selected unless the auxiliary setting is turned on. For more details, refer to **AUX** *(auxiliary input)* on this page.

Switching the display

Selecting the desired text information
1 Press **DISP**/**DISP OFF** to cycle between the following:
• Source name
• Source name and clock

Turning the display off or on

● **Press and hold DISP/DISP OFF until the display turns on or off.**

If an unwanted display appears

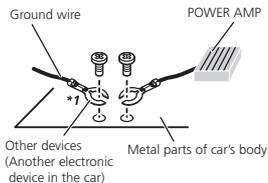Turn off the unwanted display using the procedures listed below.

1   Press M.C. to display the main menu.

2   Turn M.C. to change the menu option and press to select SYSTEM.

3   Turn M.C. to display DEMO OFF and press to select.

4   Turn M.C. to switch to YES.

5   Press M.C. to select.

Connections

⚠ WARNING

• Use speakers over 50 W (output value) and between 4 Ω to 8 Ω (impedance value). Do not use 1 Ω to 3 Ω speakers for this unit.
• The black cable is ground. When installing this unit or power amp (sold separately), make sure to connect the ground wire first. Ensure that the ground wire is properly connected to metal parts of the car's body. The ground wire of the power amp and the one of this unit or any other device must be connected to the car separately with different screws. If the screw for the ground wire loosens or falls out, it could result in fire, generation of smoke or malfunction.

Ground wire   POWER AMP

*1

Other devices (Another electronic device in the car)   Metal parts of car's body

*1 Non supplied for this unit

⊙ Important

• When installing this unit in a vehicle without an ACC (accessory) position on the ignition switch, failure to connect the red cable to the terminal that detects operation of the ignition key may result in battery drain.


ACC position   No ACC position

• Use this unit with a 12-volt battery and negative grounding only. Failure to do so may result in a fire or malfunction.
• To prevent a short-circuit, overheating or malfunction, be sure to follow the directions below.
  — Disconnect the negative terminal of the battery before installation.
  — Secure the wiring with cable clamps or adhesive tape. Wrap adhesive tape around wiring that comes into contact with metal parts to protect the wiring.
  — Place all cables away from moving parts, such as the shift lever and seat rails.
  — Place all cables away from hot places, such as near the heater outlet.
  — Do not connect the yellow cable to the battery by passing it through the hole to the engine compartment.
  — Cover any disconnected cable connectors with insulating tape.
  — Do not shorten any cables.
  — Never cut the insulation of the power cable of this unit in order to share the power with other devices. The current capacity of the cable is limited.
  — Use a fuse of the rating prescribed.
  — Never wire the negative speaker cable directly to ground.
  — Never band together negative cables of multiple speakers.
• When this unit is on, control signals are sent through the blue/white cable. Connect this cable to the system remote control of an external power amp or the vehicle's auto-antenna relay control terminal (max. 300 mA 12 V DC). If the vehicle is equipped with a glass antenna, connect it to the antenna booster power supply terminal.
• Never connect the blue/white cable to the power terminal of an external power amp. Also, never connect it to the power terminal of the auto antenna. Doing so may result in battery drain or a malfunction.
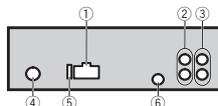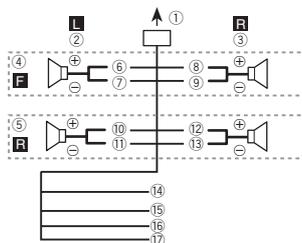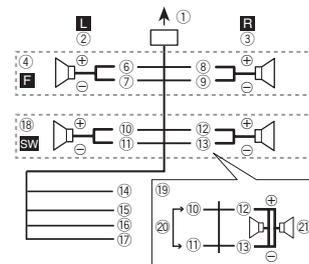
This unit

① Power cord input
② Rear output or subwoofer output
③ Front output
④ Antenna input
⑤ Fuse (10 A)
⑥ Wired remote input
  Hard-wired remote control adapter can be connected (sold separately).

Power cord

Perform these connections when not connecting a rear speaker lead to a subwoofer.

Perform these connections when using a subwoofer without the optional amplifier.

① To power cord input
② Left
③ Right
④ Front speaker
⑤ Rear speaker
⑥ White
⑦ White/black
⑧ Gray
⑨ Gray/black
⑩ Green
⑪ Green/black
⑫ Violet
⑬ Violet/black
⑭ Black (chassis ground)
  Connect to a clean, paint-free metal location.
⑮ Yellow
  Connect to the constant 12 V supply terminal.
⑯ Red
  Connect to terminal controlled by ignition switch (12 V DC).
⑰ Blue/white
  Connect to system control terminal of the power amp or auto-antenna relay control terminal (max. 300 mA 12 V DC).
⑱ Subwoofer (4 Ω)

⑲ When using a subwoofer of 70 W (2 Ω), be sure to connect the subwoofer to the violet and violet/black leads of this unit. Do not connect anything to the green and green/black leads.

⑳ Not used.

㉑ Subwoofer (4 Ω) × 2

Notes

• With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.

• Change the initial menu of this unit. Refer to **SP-P/O MODE** (rear output and preout setting) on page 8.
The subwoofer output of this unit is monaural.

Power amp (sold separately)

Perform these connections when using the optional amplifier.
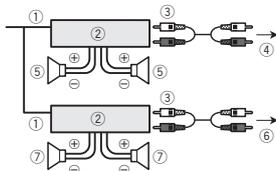
① System remote control
Connect to Blue/white cable.
② Power amp (sold separately)
③ Connect with RCA cables (sold separately)
④ To Front output
⑤ Front speaker
⑥ To Rear output or subwoofer output
⑦ Rear speaker or subwoofer

Installation

Important

• Check all connections and systems before final installation.

• Do not use unauthorized parts as this may cause malfunctions.

• Consult your dealer if installation requires drilling of holes or other modifications to the vehicle.

• Do not install this unit where:
— it may interfere with operation of the vehicle.
— it may cause injury to a passenger as a result of a sudden stop.

• The semiconductor laser will be damaged if it overheats. Install this unit away from hot places such as near the heater outlet.

• Optimum performance is obtained when the unit is installed at an angle of less than 60°.

• When installing, to ensure proper heat dispersal when using this unit, make sure you leave ample space behind the rear panel and wrap any loose cables so they are not blocking the vents.

Leave ample space 5 cm
5 cm
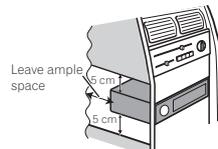
DIN front/rear mount

This unit can be properly installed using either front-mount or rear-mount installation.

Use commercially available parts when installing.

DIN Front-mount
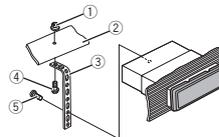
1 Insert the mounting sleeve into the dashboard.
For installation in shallow spaces, use the supplied mounting sleeve. If there is enough space, use the mounting sleeve that came with the vehicle.

2 Secure the mounting sleeve by using a screwdriver to bend the metal tabs (90°) into place.
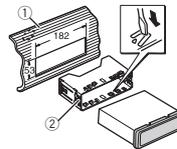
① Dashboard
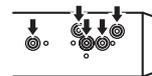② Mounting sleeve

3 Install the unit as illustrated.

① Nut
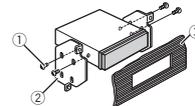② Firewall or metal support
③ Metal strap
④ Screw
⑤ Screw (M4 × 8)

■ Make sure that the unit is installed securely in place. An unstable installation may cause skipping or other malfunctions.

DIN Rear-mount

1 Determine the appropriate position where the holes on the bracket and the side of the unit match.

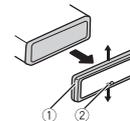**2 Tighten two screws on each side.**

① Truss screw (5 mm × 8 mm)
② Mounting bracket
③ Dashboard or console
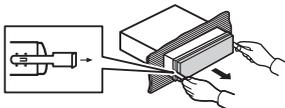
Removing the unit

1 Remove the trim ring.

① Trim ring
② Notched tab
• Releasing the front panel allows easier access to the trim ring.
• When reattaching the trim ring, point the side with the notched tab down.

2 Insert the supplied extraction keys into both sides of the unit until they click into place.

3 Pull the unit out of the dashboard.

Removing and re-attaching the front panel

You can remove the front panel to protect your unit from theft.

Press the detach button and push the front panel upward and pull it toward you.

For details, refer to *Removing the front panel to protect your unit from theft* and *Re-attaching the front panel* on page 4.

Troubleshooting

Symptom	Cause	Action
The display automatically returns to the ordinary display.	You did not perform any operation within about 30 seconds.	Perform operation again.
The repeat play range changes unexpectedly.	Depending on the repeat play range, the selected range may change when another folder or track is being selected or during fast forwarding/reversing.	Select the repeat play range again.
A subfolder is not played back.	Subfolders cannot be played when **FLD** (folder repeat) is selected.	Select another repeat play range.
NO XXXX appears when a display is changed (**NO TITLE**, for example).	There is no embedded text information.	Switch the display or play another track/file.
The unit is malfunctioning. There is interference.	You are using a device, such as a cellular phone, that transmits electric waves near the unit.	Move electrical devices that may be causing the interference away from the unit.

Error messages

When you contact your dealer or your nearest Pioneer Service Center, be sure to note the error message.

Common

Message	Cause	Action
AMP ERROR	Unit fails to operate or speaker connection is incorrect; protective circuit is activated.	Check the speaker connection. If the message fails to disappear even after the engine is switched off/on, contact your dealer or an authorized Pioneer Service Station for assistance.

CD player

Message	Cause	Action
ERROR-07, 11, 12, 17, 30	The disc is dirty.	Clean the disc.
	The disc is scratched.	Replace the disc.
ERROR-07, 10, 11, 12, 15, 17, 30, A0	There is an electrical or mechanical error.	Turn the ignition switch OFF and back ON, or switch to a different source, then back to the CD player.
ERROR-15	The inserted disc is blank.	Replace the disc.
ERROR-23	Unsupported CD format.	Replace the disc.

Additional information

Message	Cause	Action
FORMAT READ	Sometimes there is a delay between the start of playback and when you start to hear any sound.	Wait until the message disappears and you hear sound.
NO AUDIO	The inserted disc does not contain any playable files.	Replace the disc.
SKIPPED	The inserted disc contains DRM protected files.	Replace the disc.
PROTECT	All the files on the inserted disc are embedded with DRM.	Replace the disc.

USB storage device

Message	Cause	Action
FORMAT READ	Sometimes there is a delay between the start of playback and when you start to hear any sound.	Wait until the message disappears and you hear sound.
NO AUDIO	There are no songs.	Transfer the audio files to the USB storage device and connect.
	The connected USB storage device has security enabled.	Follow the USB storage device instructions to disable the security.

Message	Cause	Action
SKIPPED	The connected USB storage device contains files embedded with Windows Media™ DRM 9/10.	Play an audio file not embedded with Windows Media DRM 9/10.
PROTECT	All the files in the USB storage device are embedded with Windows Media DRM 9/10.	Transfer audio files not embedded with Windows Media DRM 9/10 to the USB storage device and connect.
N/A USB	The USB device connected to is not supported by this unit.	• Connect a USB Mass Storage Class compliant device. • Disconnect your device and replace it with a compatible USB storage device.
CHECK USB	The USB connector or USB cable has short-circuited.	Check that the USB connector or USB cable is not caught in something or damaged.
	The connected USB storage device consumes more than maximum allowable current.	Disconnect the USB storage device and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect only compliant USB storage devices.

Additional information

Message	Cause	Action
ERROR-19	Communication failed.	Perform one of the following operations. –Turn the ignition switch OFF and back ON. –Disconnect the USB storage device. –Change to a different source. Then, return to the USB source.
ERROR-23	USB storage device was not formatted with FAT12, FAT16 or FAT32.	USB storage device should be formatted with FAT12, FAT16 or FAT32.
STOP	There are no songs in the current list.	Select a list that contains songs.

Handling guidelines

Discs and player

Use only discs that feature either of the following two logos.

Use 12-cm discs. Do not use 8-cm discs or an adapter for 8-cm discs.

Use only conventional, fully circular discs. Do not use shaped discs.

Do not insert anything other than a CD into the CD loading slot.

Do not use cracked, chipped, warped, or otherwise damaged discs as they may damage the player.

Unfinalized CD-R/RW discs cannot be played back.

Do not touch the recorded surface of the discs.

Store discs in their cases when not in use.

Do not attach labels, write on or apply chemicals to the surface of the discs.

To clean a CD, wipe the disc with a soft cloth outward from the center.

Condensation may temporarily impair the player's performance. Let it rest for about one hour to adjust to a warmer temperature. Also, wipe any damp discs off with a soft cloth.

Playback of discs may not be possible because of disc characteristics, disc format, recorded application, playback environment, storage conditions, and so on.

Road shocks may interrupt disc playback.

Read the precautions for discs before using them.

Additional information

Additional information

When using discs that can be printed on label surfaces, check the instructions and the warnings of the discs. Depending on the discs, inserting and ejecting may not be possible. Using such discs may result in damage to this equipment.

Do not attach commercially available labels or other materials to the discs.
• The discs may warp making the disc unplayable.
• The labels may come off during playback and prevent ejection of the discs, which may result in damage to the equipment.

USB storage device

Address any questions you have about your USB storage device to the manufacturer of the device.

Connections via USB hub are not supported.

Do not connect anything other than a USB storage device.

Firmly secure the USB storage device when driving. Do not let the USB storage device fall onto the floor, where it may become jammed under the brake or accelerator pedal.

Depending on the USB storage device, the following problems may occur.
• Operations may vary.
• The storage device may not be recognized.
• Files may not be played back properly.
• The device may generate noise in the radio.

DualDiscs

DualDiscs are two-sided discs that have a recordable CD for audio on one side and a recordable DVD for video on the other.
Since the CD side of DualDiscs is not physically compatible with the general CD standard, it may not be possible to play the CD side with this unit.

Frequent loading and ejecting of a DualDisc may result in scratches on the disc. Serious scratches can lead to playback problems on this unit. In some cases, a DualDisc may become stuck in the disc loading slot and will not eject. To prevent this, we recommend you refrain from using DualDisc with this unit.
Please refer to the information from the disc manufacturer for more detailed information about DualDiscs.

Compressed audio compatibility (disc, USB)

WMA

File extension: .wma

Bit rate: 48 kbps to 320 kbps (CBR), 48 kbps to 384 kbps (VBR)

Sampling frequency: 32 kHz, 44.1 kHz, 48 kHz

Windows Media Audio Professional, Lossless, Voice/DRM Stream/Stream with video: Not compatible

MP3

File extension: .mp3

Bit rate: 8 kbps to 320 kbps (CBR), VBR

Sampling frequency: 8 kHz to 48 kHz (32 kHz, 44.1 kHz, 48 kHz for emphasis)

Compatible ID3 tag version: 1.0, 1.1, 2.2, 2.3, 2.4 (ID3 tag Version 2.x is given priority over Version 1.x.)

M3u playlist: Not compatible

MP3i (MP3 interactive), mp3 PRO: Not compatible

WAV

File extension: .wav

Quantization bits: 8 and 16 (LPCM), 4 (MS ADPCM)

Sampling frequency: 16 kHz to 48 kHz (LPCM), 22.05 kHz and 44.1 kHz (MS ADPCM)

Supplemental information

Only the first 32 characters can be displayed as a file name (including the file extension) or a folder name.

This unit may not operate correctly depending on the application used to encode WMA files.

There may be a slight delay at the start of playback of audio files embedded with image data or audio files stored on a USB storage device that has numerous folder hierarchies.

Disc

Playable folder hierarchy: up to eight tiers (A practical hierarchy is less than two tiers.)

Playable folders: up to 99

Playable files: up to 999

File system: ISO 9660 Level 1 and 2, Romeo, Joliet

Multi-session playback: Compatible

Packet write data transfer: Not compatible

Regardless of the length of blank sections between the songs from the original recording, compressed audio discs play with a short pause between songs.

USB storage device

Playable folder hierarchy: up to eight tiers (A practical hierarchy is less than two tiers.)

Playable folders: up to 500

Playable files: up to 15 000

Playback of copyright-protected files: Not compatible

Partitioned USB storage device: Only the first partition can be played.

There may be a slight delay when starting playback of audio files on a USB storage device with numerous folder hierarchies.

⚠ CAUTION
• Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using this product.
• Do not leave discs or a USB storage device in any place that is subject to high temperatures.

Sequence of audio files

The user cannot assign folder numbers and specify playback sequences with this unit.

Additional information

Example of a hierarchy

☐ : Folder
♫ : Compressed audio file
01 to 05: Folder number
① to ⑥: Playback sequence

Level 1 Level 2 Level 3 Level 4
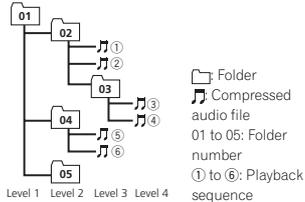
Disc

Folder selection sequence or other operation may differ depending on the encoding or writing software.

USB storage device

Playback sequence is the same as recorded sequence in the USB storage device.
To specify the playback sequence, the following method is recommended.
1 Create a file name that includes numbers that specify the playback sequence (e.g., 001xxx.mp3 and 099yyy.mp3).
2 Put those files into a folder.
3 Save the folder containing files on the USB storage device.
However, depending on the system environment, you may not be able to specify the playback sequence.
For USB portable audio players, the sequence is different and depends on the player.

Copyright and trademark

iTunes

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MP3

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WMA

Windows Media is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from Microsoft Licensing, Inc.

Specifications

General

Rated power source .... 14.4 V DC
(allowable voltage range: 12.0 V to 14.4 V DC)
Grounding system .... Negative type
Maximum current consumption
.... 10.0 A
Dimensions (W × H × D):
  DIN
    Chassis .... 178 mm × 50 mm × 165 mm
    Nose .... 188 mm × 58 mm × 16 mm
  D
    Chassis .... 178 mm × 50 mm × 165 mm
    Nose .... 170 mm × 46 mm × 16 mm
Weight .... 1 kg

Audio

Maximum power output ... 50 W × 4
70 W × 1/2 Ω (for subwoofer)
Continuous power output
.... 22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both channels driven)
Load impedance .... 4 Ω (4 Ω to 8 Ω allowable)
Preout maximum output level
.... 2.0 V
Loudness contour .... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)
Equalizer (5-Band Graphic Equalizer):
    Frequency .... 80 Hz/250 Hz/800 Hz/ 2.5 kHz/8 kHz
    Equalization range .... ±12 dB (2 dB step)
Subwoofer (mono):
    Frequency .... 50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz/160 Hz/200 Hz
    Slope .... –6 dB/oct, –12 dB/oct
    Gain .... +6 dB to –24 dB
    Phase .... Normal/Reverse

CD player

System .... Compact disc audio system
Usable discs .... Compact disc
Signal-to-noise ratio .... 94 dB (1 kHz) (IEC-A network)
Number of channels .... 2 (stereo)
MP3 decoding format ...... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio) (Windows Media Player)

WAV signal format .... Linear PCM & MS ADPCM (Non-compressed)

USB

USB standard specification
.... USB 2.0 full speed
Maximum current supply
.... 1 A
USB Class .... MSC (Mass Storage Class)
File system FAT12, FAT16, FAT32
MP3 decoding format ...... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio) (Windows Media Player)
WAV signal format .... Linear PCM & MS ADPCM (Non-compressed)

FM tuner

Frequency range .... 87.5 MHz to 108.0 MHz
Usable sensitivity .... 9 dBf (0.8 µV/75 Ω mono, S/N: 30 dB)
Signal-to-noise ratio .... 72 dB (IEC-A network)

MW tuner

Frequency range .... 531 kHz to 1 602 kHz (9 kHz) 530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity .... 25 µV (S/N: 20 dB)
Signal-to-noise ratio .... 62 dB (IEC-A network)

SW tuner

Frequency range .... 2 300 kHz to 7 735 kHz
(2 300 kHz to 2 495 kHz, 2 940 kHz to 4 215 kHz, 4 540 kHz to 5 175 kHz, 5 820 kHz to 6 455 kHz, 7 100 kHz to 7 735 kHz, 9 500 kHz to 21 975 kHz (9 500 kHz to 10 135 kHz, 11 580 kHz to 12 215 kHz, 13 570 kHz to 13 870 kHz, 15 100 kHz to 15 735 kHz, 17 500 kHz to 17 985 kHz, 18 015 kHz to 18 135 kHz, 21 340 kHz to 21 975 kHz)
Usable sensitivity .... 28 µV (S/N: 20 dB)
Signal-to-noise ratio .... 62 dB (IEC-A network)

Note

Specifications and the design are subject to modifications without notice.

English

En 15

<KOKZX> <12F00000>

Printed in Thailand

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